**Methods:** An effort to increase BB utilization was implemented in 2003 at 11 centers participating in the Vascular Study Group of New England (VS GNE). A 90% target was set and feedback given at bi-annual meetings. BB usage (< 1-mo preoperative (P) vs chronic (C)) and POMI rates were prospectively collected among patients undergoing open AAA repair (n = 926) and lower extremity bypass (n = 2123) from 2003 through 2008. Predictors of POMI were determined using multivariate logistic regression. Rates of BB utilization and POMI were analyzed over time across strata of patient risk based on a multivariate model.

**Results:** Overall BB utilization was 86% (AAA 90%, LEB 84%, $p < 0.001$), and in-hospital POMI occurred in 5.5% of patients (AAA 7.6%, LEB 4.6%, $p < 0.001$). P-BB usage increased in low risk and C- BB usage increased in medium/high risk pts, but POMI rates did not change over time (table). Age >70 (OR 2.1), positive stress test (OR 2.2), CHF (OR 1.7), C-BB (OR 1.7), resting heart rate (HR) < 70 (OR 1.8) and diabetes (OR 1.6) were independent predictors of POMI. Resting HR was 67, 70, 70 for patients on C-BB, P-BB and no BB.

**Conclusions:** Despite regional improvement in BB usage, POMI rate did not decrease, perhaps due to P-BB doses that did not change HR. A negative impact of C-BB on POMI was unexpected and requires further investigation.

| | Utilization | | | | | | Post-Op MI Rate | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Chronic - C | | | Preop - P (< 1 month) | | | Chronic - C | | | Preop - P (< 1 month) | | |
| Pt. Risk Category | 2003-05 | 2006-08 | p | 2003-05 | 2006-08 | p | 2003-05 | 2006-08 | p | 2003-05 | 2006-08 | p |
| Low (n=539) | 49% | 53% | 0.18 | 28% | 36% | 0.01 | 2.5% | 2.3% | 0.89 | 1.8% | 0.7% | 0.42 |
| Medium (n=1,758) | 56% | 62% | 0.01 | 28% | 30% | 0.45 | 5.6% | 4.7% | 0.56 | 4.6% | 2.5% | 0.23 |
| High (n=751) | 60% | 70% | 0.00 | 19% | 24% | 0.09 | 12.2% | 15.1% | 0.34 | 7.3% | 6.2% | 0.77 |

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## SS35.

### Peripherally Inserted Central Catheter (PICC) Usage Patterns and Associated Upper Extremity Venous Thrombosis

Timothy K. Liem, Keenan E. Yanit, Shannon E. Moseley, Claudia A. Rumwell, Gregory J. Landry, Erica Mitchell, Gregory Moneta. Vascular Surgery, Oregon Health & Science University, Portland, OR

**Objectives:** PICC line placement may be complicated by superficial (SVT) or deep vein thrombosis (DVT). The purpose of this study was to determine if any PICC line characteristics were associated with venous thrombotic complications.

**Methods:** All upper extremity venous duplex scans over a 12-month period were reviewed, selecting patients with isolated SVT or DVT, and recently placed PICC lines (< 30 days). Patient characteristics, PICC insertion sites, and technical specifications were evaluated. Over the same period, PICC usage patterns were determined from an electronic medical record query.

**Results:** Over the 12-month period, 690 patients underwent upper extremity venous duplex scans, revealing 219 isolated SVTs and 154 DVTs. Concurrently, 685 PICC line procedures were reviewed (74% basilic, 16% brachial vein, 10% cephalic). 44 of 219 (20%) isolated SVTs were associated with a PICC line (32% cephalic, 68% basilic). 54 of 154 DVTs (35%) were associated with a PICC line. Basilic vein PICCs accounted for 45 DVTs (83%) and brachial vein PICCs for 9 (7.5%), but there were no DVTs associated with cephalic vein PICC lines. ($p = 0.03$)

**Conclusions:** PICC lines placed in the cephalic vein are associated with isolated SVT, while those placed in the basilic vein are more frequently associated with SVT and DVT. The cephalic vein should be preferentially utilized for PICC line placement to minimize the risk for iatrogenic DVT formation.

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## S7: James M. Seeger Education Session

## SS36.

### Vascular Surgery Board Analysis of the Surgical Operative Experience of Trainees and Practicing Vascular Surgeons

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**Objectives:** We aimed to find out whether the scope and complexity of current vascular surgery training reflect contemporary vascular surgery practice.

**Methods:** We analyzed the operative logs submitted to the VS B-ABS by recent vascular surgery residents applying for the qualifying exam (QE) (2006-2009) or by practicing vascular surgeons applying for the recertifying exam (RE) (2003-2009). Regional variations in operative data for applicants to the RE were also examined. An analysis of case volume and performance on the written exam was performed.

**Results:** The reported operative experience of QE applicants exceeds or equals the operative experience of RE